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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Cioffi, et al.	Examiner:	Unknown
Serial No.:	10/692,297	Group Art Unit:	2661
Filed:	10/23/2003	Docket No.:	STFD.060PA (S02-085)
Title:	CONCURRENT FREQUENCY-SHARING MULTI-USER COMMUNICATION SYSTEM WITH RATE ALLOCATION APPROACH		

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence and the papers, as described hereinabove, are being deposited in the United States Postal Service, as first class mail, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on July 29, 2004.

By:

*Kelly J. Ledin*  
Katie Brandel Kelly J. Ledin

INFORMATION DISCLOSURE STATEMENT (37 C.F.R. §1.97(b))

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

With regard to the above-identified application, the items of information listed on the enclosed Form 1449 are brought to the attention of the Examiner.

This statement should be considered because it is submitted either within three months of the filing date or before the first Office Action of the above-identified application. Accordingly, no fee is due for consideration of the items listed on the enclosed Form 1449.

Applicant would like to bring to the attention of the Examiner the following references, which were mentioned in the underlying provisional application:

1. A. Agrawal and J. Cioffi, "Power Control for Multiuser Space-Time CDMA," GLOBECOM 2002.
2. P. Bender, P. Black, M. Grob, R. Padovani, N. Sindhushayana, A. Viterbi, "CDMA/HDR: A Bandwidth-Efficient High-Speed Wireless Data Service for Nomadic Users", IEEE Communications Magazine, July 2000.
3. IEEE 802.11a OFDM System.
4. S. Verdu, *Multiuser Detection*, Cambridge, U.K., Cambridge University Press, 1998

5. Arogyaswami J. Paulraj, Constantinos B. Papadias, "*Space-Time Processing for Wireless Communications*", IEEE Signal Processing Magazine, pp. 49-83, 1997.
6. Xiadong Wang, H. Vincent Poor, "*Space-Time Multiuser Detection in Multipath CDMA Channels*", IEEE Transactions On Signal Processing, Vol. 47, No. 9, Sept. 1999.
7. A. Agrawal, J. Andrews, T. Meng, J. Cioffi, "*Iterative Power Control for Successive Interference Cancellation*", submitted to IEEE Transactions in Vehicular Technology.
8. C.W. Sung, W.S. Wong, "*A Distributed Fixed-Step Power Control Algorithm with Quantization and Active Link Quality Protection*", IEEE Transactions on Vehicular Technology, Vol. 48, No. 2, March 1999.
9. J. D. Herdtner, E.K.P. Chong, "*Analysis of a Class of Distributed Asynchronous Power Control Algorithms for Cellular Wireless Systems*", IEEE Journal on Selected Areas of Communications, Vol. 18, No. 3, March 2000.
10. George Ginis, John M. Cioffi, "On the Relation Between V-BLAST and the GDFE, IEEE Communication Letters, Vol. 5, No. 9, Sept. 2001.
11. R. D. Yates, "*A Framework for Uplink Power Control in Cellular Radio Systems*", IEEE Journal on Selected Areas in Communications, Vol. 13, No. 7, Sept. 1995.
12. J. Zander, "*Performance of Optimum Transmitter Power Control in Cellular Radio Systems*", IEEE Transactions on Vehicular Technology, Vol. 41, pp. 57-62, Feb. 1992.
13. G. J. Foschini, Z. Miljanic, "*A Simple Distributed Autonomous Power Control Algorithm and its Convergence*", IEEE Transactions on Vehicular Technology, Vol. 42, No. 4, Nov. 1993.
14. J. M. Cioffi and G. D. Forney, "*Generalized Decision-Feedback Equalization for Packet Transmission with ISI and Gaussian Noise*", Chapter 4 of Communication, Computation, Control and Signal Processing (a tribute to Thomas Kailath), Editors: A. Paulraj, V. Roychowdhury, and C. Schaper, Boston MA: Kluwer, 1997.
15. A. J. Viterbi, *Principles of Spread Spectrum Communiation*, Addison-Wesley Publishing Co., 1995.
16. N. Bambos , S. Chen, G. Pottie, "*Channel Access Algorithms with Active Link Protection for Wireless Communication Networks with Power Control*", IEEE-ACM Transactions on Networking, Vol. 8, No. 5, Oct. 2000.
17. P. Sarath Kumar, Jack Holtzman, "*Power Control for a Spread Spectrum System with Multiuser Receivers*", Personal, Indoor and Mobile Radio Communications (PIMRC), 1995.
18. Sennur Ulukus, Roy D. Yates, "*Adaptive Power Control with MMSE Multiuser Detectors*", ICC, 1997.
19. Dongwoo Kim, "*On the Convergence of Fixed-Step Power Control Algorithms with Binary Feedback for Mobile Communication Systems*", IEEE Transactions on Communications, Vol. 49, No. 2, Feb. 2001.

20. Aylin Yener, Roy Yates, Sennur Ulukus, "*Interference Management for CDMA Systems Through Power Control, Multiuser Detection, and Beamforming*", IEEE Transactions on Communications, Vol. 49, No. 7, July 2001.
21. Farrokh Rashid-Farrokhi, Leandros Tassiulas, K.J. Ray Liu, "*Joint Optimal Power Control and Beamforming In Wireless Networks Using Antenna Arrays*", IEEE Transactions on Communications, Vol. 46, No. 10, Oct. 1998.
22. Sudheer A. Grandhi, Rajiv Vijayan, David J. Goodman, "*Distributed Power Control in Cellular Radio Systems*", IEEE Transactions on Communications, Vol. 42, No. 2/3/4, Feb./March/April 1994.
23. Sudheer A. Grandhi, Rajiv Vijayan, David J. Goodman, Jens Zander, "*Centralized Power Control in Cellular Radio Systems*" IEEE Transactions on Vehicular Technology, Vol. 42, No. 4, Nov. 1993.

In accordance with 37 C.F.R. §1.98(a)(2), and the 05 August 2003 Official Gazette Notice, only a copy of each foreign document or non-U.S. patent/application listed on the enclosed Form 1449 is provided.

Please note that any notations or markings on the attached documents do not reflect particular relevance, or lack thereof, to the present application, nor were they necessarily made by anyone affiliated with the prosecution of the present application.

No representation is made that a reference is "prior art" within the meaning of 35 U.S.C. §§ 102 and 103 and Applicants reserve the right, pursuant to 37 C.F.R. § 1.131 or otherwise, to establish that the reference(s) are not "prior art." Moreover, Applicants do not represent that a reference has been thoroughly reviewed or that any relevance of any portion of a reference is intended.

Consideration of the items listed is respectfully requested. Pursuant to the provisions of M.P.E.P. 609, it is requested that the Examiner return a copy of the attached Form 1449, marked as being considered and initialed by the Examiner, to the undersigned with the next official communication.

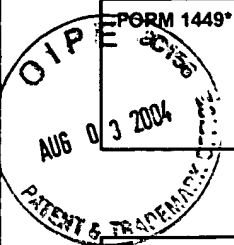
Respectfully submitted,

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Date: July 29, 2004

By: 

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FORM 1449* <b>INFORMATION DISCLOSURE STATEMENT</b> <b>IN AN APPLICATION</b> (Use several sheets if necessary)	Docket Number: STFD.060PA	Application Number: 10/692,297
	Applicant: CIOFFI <i>et al.</i>	
	Filing Date: 10/23/03	Group Art Unit: 2661

**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	US 2002/0136397 A1		Zeng et al.			9/26/2002
	US 2003/0086362 A1		Hasegawa et al.			5/8/2003

**FOREIGN PATENT DOCUMENTS**

	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**


**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**


EXAMINER	DATE CONSIDERED
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.	